Executive Summary

The Minneapolis Local Surface Water Management Plan (LSWMP) serves as a comprehensive planning document to guide the City in conserving, protecting and managing its surface water resources. As conceived by the City, the LSWMP consists of two distinct phases. This report is the culmination of the first phase. The second phase involves detailed hydrologic and hydraulic modeling of the City's entire stormwater system.

The content of the Phase 1 LSMWP is in large part determined by Minnesota statue 103B and Rules 8410. Specifically, statute 103B.235 states:

> *After the watershed plan is approved and adopted, or amended, pursuant to section 103B.231, the local government units having land use planning and regulatory responsibility for territory within the watershed shall prepare or cause to be prepared a local water management plan, capital improvement program, and official controls as necessary to bring local water management into conformance with the watershed plan…*

Minnesota Rules 8410 is more specific about the content of the local plans. According to rules these plans shall include the following:

- Table of Contents
- Purpose
- Executive Summary
- Land and Water Resource Inventory
- Establishment of Goals and Policies
- Relation of goals and policies to local, regional, state and federal plans, goals and programs
- Assessment of Problems
- Corrective Actions
- Financial Considerations
- Implementation Priorities
- Amendment Procedures
- Implementation Program
- Appendix

The sections of this report directly reference several of the items listed above. The other items, though they do not form actual section headings, are nonetheless covered within this report.

Purpose

The purpose of the Minneapolis Phase 1 LSWMP is to:

1. Collect and compile the efforts of agencies and organizations including various departments of the City of Minneapolis. This includes past reports and studies, management plans, monitoring studies, as well as completed and proposed improvement projects.
2. Review the current state of the City's surface water resources in the context of goals and policies, ordinances, operations and maintenance, flood mitigation, and achievement of targeted water quality levels in its surface water bodies.
3. Establish reasonable, achievable and affordable goals, and support them by a strong regulatory and management culture. Develop an implementation plan that includes projects and processes that derive from a thorough assessment of current city problem areas and current city stormwater regulations and controls.

The purpose of the Plan is not to develop new initiatives, rather it is to document efforts already underway, to formalize procedures already in place, and summarize needs that have already been identified. Ultimately, this Plan compiles information from a multitude of sources and synthesizes this information so that the Plan becomes the definitive summary of surface water management for the City of Minneapolis.

In phase 2 of Minneapolis' LSWMP, the City will perform detailed hydrologic and hydraulic modeling of its entire system. This model will include storm sewers, surface storage such as lakes and ponds, as well as the deep tunnel system that carries runoff to the Mississippi River. This model will be built upon that created for the City's Storm Tunnel System Management Plan Phase II, completed in February of 2004. When this stormwater system model is complete, the City can develop a prioritized capital improvement program.

Land and Water Resource Inventory

Topography divides the City into four main watersheds: Mississippi River, Minnehaha Creek, Shingle Creek and Bassett's Creek. Generally, these topographic boundaries determine the jurisdictional boundaries of the four watersheds within the City. About 51% of land area in Minneapolis falls within the Mississippi Watershed Management Organization (MWMO) boundary, 36% is within the Minnehaha Creek Watershed District (MCWD) and approximately 13% falls within the Bassett's Creek Water Management Commission (BCWMC) and Shingle Creek Watershed Management Commission (SCWMC) boundaries.

Minneapolis is a completely developed City with greater than 50% of its total area under residential land use. Public and recreational land use represents the next highest area at 16%, followed by industrial land use. Highways (right-of-ways greater than 200 feet included) constitute about 3% of the City's land area.

About one square mile of vacant land remains scattered throughout the City (State of the City Report, 2001).

Minneapolis has a significant number of waterbodies within its boundaries. All water resources are managed on a watershed basis. The watershed districts/management organizations were created to protect, enhance and restore resources within their jurisdictions through education, management and enforcement. A wealth of literature exists that has resulted from past efforts of the City, the watersheds and state agencies. It includes annual reports, management plans, and monitoring results.

More so than its distinct residential and commercial areas, the dominant feature of Minneapolis is its lakes. The lakes are a diverse group that includes the 421 acre, 27-foot deep Lake Calhoun and the 54 acre, 7-foot deep Lake Hiawatha. Altogether, there are 19 separate waterbodies within Minneapolis that are of significant a size to be listed on the Minnesota Department of Natural Resources public waters inventory.

Minneapolis is also characterized by its creeks: Shingle and Bassett's toward the north and Minnehaha toward the south. Minnehaha is far and away that largest of these in terms of watershed area. Overall, 181 square miles drain to the Creek as it makes its way to the Mississippi River. In contrast, the watershed area for Bassett's Creek is 40 square miles, while that for Shingle Creek is 44 square miles.

Minneapolis ultimately drains to the Mississippi River. Of the 13 locks and dams between Minneapolis and Guttenberg, Iowa, three occur in Minneapolis. These include the Upper and Lower St. Anthony dams and Lock and Dam 1.

Goals and Policies

The primary purpose of the Phase I LSWMP is to provide clear guidance on how the City of Minneapolis intends to manage its surface water. Over time, significant advancement has been made in our understanding of how natural and man made systems function in the context of rainfall, infiltration and runoff. New regulations have been created that reflect increased protection for waterbodies and emphasize treatment of stormwater to protect downstream water resources and groundwater.

Section 3 of the report presents the City's goals and policies. A number of these goals and policies are guided by federal, state, and regional mandates. Others arise out of the City's own need to protect its natural resources in light of its unique urban character and circumstances.

A number of regulations, strategies and tools have emerged to manage the City's land and water resources effectively. The City is aided by parallel regulations from the watershed management organizations. Together these make up the body of strategies and regulations that guide the protection and management of the water resources within the City.

The Phase I LSWMP provides the blueprint for how the City intends to be responsive to stormwater management priorities. The Phase I LSWMP is also intended to meet the requirements of the watershed management organizations that have water management jurisdiction over various parts of the City.

The City of Minneapolis' goals are organized around the following subjects:

- Flood Protection
- Stormwater Runoff Quality
- Protection of Valuable Water Resources
- Surface Water System – Design, Construction, Regulation, and Use
- Surface Water System – Operation and Management
- Phase 1 NPDES Permit
- Natural and Recreational Resources – Preservation, Enhancement, and Maintenance

The stormwater goals and policies are an extension of the City's vision for the future and tied to its "livability and quality of life". It is specifically an expansion of one of the City's eight goals, as approved by the City Council and Mayor in January 2003, namely:

> *"To preserve, enhance and create a sustainable natural and historic environment citywide"*

To serve the needs of the City and meet the conditions of the Metropolitan Land Planning Act, the City of Minneapolis has developed a comprehensive plan entitled The Minneapolis Plan. The Minneapolis Plan was adopted by the Mayor and City Council on March 24, 2000. In Chapter 7 of the Minneapolis Plan, titled Natural Ecology, the City lists actions it will take to protect the environment. Specifically, in section 7.5, it states that "Minneapolis will protect and sustain its water resources."

The implementation steps in this section that are specific to surface water management are as follows:

- Develop and adopt a municipal Water Plan in conformance with local watershed groups and regional, state and federal agencies in order to properly manage water resources and to help all citizens be stewards of irreplaceable natural resources such as clean water.
- Undertake community-based and city-wide measures to protect lake water quality by managing storm runoff, employing erosion control measures and other best management practices.
- Encourage practices that result in either reduced overall amounts of impervious surfaces, or disconnect impervious surfaces and allow water to be slowed or detained in vegetated areas where it will do no harm to homes or property.
- Preserve and restore wetlands for their irreplaceable contributions to water quality, control of floodwater rates and volumes, wildlife habitat and aesthetic purposes.
- Develop and adopt a stormwater management ordinance for projects that will result in sizable land disturbance activity, with design standards for appropriate "best management practices" in order to reduce both runoff volume and contaminant loading from surface water runoff.
- Coordinate and collaborate with other communities and regional, state and federal agencies to preserve the quality of water in the Mississippi River and other water bodies regarding National Pollutant Discharge Elimination System requirements.
- Adopt regulations encouraging the stabilization and revegetation of slopes and riverbanks.

- Work with other communities and agencies to preserve the quality of water in the Mississippi River, streams and lakes.
- Clean, inspect, repair and renovate sanitary sewers and structures.

Regulation of stormwater and stormwater discharges involves numerous agencies at every level of government. Listed below are entities that Minneapolis interacts with when it manages its stormwater system.

Environmental Protection Agency – As it relates to surface water management within Minneapolis this agency is charged with interpreting and applying aspects of the Clean Water Act. This has led to the City's need for its NPDES permit. Total maximum daily load limits, a new initiative mandated by the EPA, also stems for the EPA's role as steward of the Clean Water Act.

Board of Water and Soil Resources – The powers and duties of this Minnesota state agency include:

1. Coordination of water and soil resources planning among counties, watersheds, and local units of government
2. Facilitation of communication among state agencies in cooperation with the Environmental Quality Board
3. Approval of watershed management plans

Watershed Districts and Management Organizations – The powers and duties of these Minnesota statutory authorities include:

1. Approval authority over local water management plans
2. Ability to determine a budget and raise revenue for the purpose of covering administrative and capital improvement costs.
3. Regulation of land use and development when one or more of the following apply:
    a. The City does not have an approved local plan in place
    b. The City is in violation of their approved local plan
    c. The City authorizes the watershed toward such regulation

Department of Natural Resources – The powers and duties of this Minnesota State Department and its commissioner are wide ranging. As they affect surface water management within Minneapolis they include:

1. Regulation of all public waters inventory waterbodies within the City – to the extent of their ordinary high water level.
2. Regulation of certified floodplains around rivers, creeks, lakes and wetlands.
3. Management of the Flood Hazard Mitigation program from which the City has obtained funds for flood mitigation projects.

Minnesota Pollution Control Agency – The powers and duties of this Minnesota State Agency and its commissioner include:

1. Fulfilling mandates from the EPA, particularly in regard to the Clean Water Act
2. Administration of Minneapolis' and St. Paul's NPDES Phase 1 permits
3. Administration of the NPDES construction site permit program
4. Administration of the NPDES industrial site discharge permit program
5. Development of TMDLs for waterbodies and watercourses in Minnesota (often in conjunction with other agencies or joint powers organizations such as watersheds)

System Assessment

As part of the phase 1 plan preparation, the City monitored stormwater flows in three locations. This monitoring involved the placement of equipment in storm sewer pipe and the recording of flow and pollutant data during the summer of 2003. The intent of the monitoring is to determine hydrologic parameters for the comprehensive, city-wide modeling associated with phase 2 of the LSWMP.

The system assessment section of this report summarizes known problems related to water quantity (flooding) and water quality.

The Minneapolis stormwater system consists of two primary components:

- Storm drainage system – surface waterbodies, drainageways, and shallow storm sewers
- Deep tunnels – deep tunnels conveying stormwater to the Mississippi River

In the storm drainage system, the primary problem is flooding of a number of locations throughout the City. For the deep tunnel system, problems involve lack of capacity and structural deterioration.

The City Public Works Department, MPRB, and watersheds have all engaged in efforts to improve water quality in the City – particularly within the City's lakes. The result of these efforts has been a general trend toward stable water quality in several lakes and slight improvement in a couple instances – most notably, Lake Calhoun.

One area of continued confusion has been the diverse methodology used to describe the condition of waterbodies within Minneapolis – particularly the lakes. One watershed will use the trophic state index while another might emphasize recreational suitability. The differing emphasis leads to confusion for policy makers who are looking for clear indications of what actions are necessary to improve water quality.

Toward that end the Phase 1 LSWMP incorporates the City's recently devised lake classification system called the "Lake Recreational Suitability Index." This system's purpose is to present a single value indicator that reflects the multiple aspects of a lake's recreational and aesthetic condition. The measures that go into this indicator include:

- Environmental quality – transparency, total phosphorus, and chlorophyll a
- Public health – bacteria and other pathogens
- Aesthetic considerations – odor, color, presence of debris (somewhat subjective)
- Recreation interferences – weeds, particularly Eurasian Water Milfoil

Implementation

Section 5 of the report covers implementation. More specifically it provides a plan for regulating and managing the City's surface water system, addressing problem areas, and protecting key water resources in the City. The section assesses the adequacy of existing controls, standards and capital improvements in the light of the City's current needs and long term objectives.

The real measure of success of the Phase I LSWMP is in its implementation. Implementation of the Phase I LSWMP covers a number of aspects, including:

- Regulatory administrative responsibilities
- Identification of gaps in regulatory controls and programs
- Design standards for surface water management
- Surface water monitoring – sampling protocols, data analysis and reporting
- Inspecting, operating and maintaining the surface water system
- Public education regarding stormwater management
- Addressing flooding problems
- Constructing prioritized capital improvements
- Financing projects and programs
- Providing a process for future amendments to the LSWMP

One of the aims of the LSWMP is to translate the City's Strategy for Management of the Physical Environment (The Minneapolis Plan) into goals and policies that best manage its surface water resources.

Gaps in Programs and Regulatory Controls

Once goals and policies are determined, existing regulations and programs are examined for gaps. Specific actions are the outcome of gaps identified between a City goal and an existing City procedure. This is followed by implementation actions to fill in the gaps. A schematic of this process is shown below. After outlining goals and policies, identification of gaps is critical to achieving the defined goals and policies.

While a goal is a desired end toward which management of surface water resources may be directed, policies are the governing principles that provide the strategy for achieving the goal. Some policies remain discretionary in order to provide the City with latitude and the opportunity to use the policy to achieve its overall goals in the best way possible. Implementation strategies may include revised or additional ordinances, design standards, programs, and options for financing them.

As part of the LSWMP, existing programs and regulations were screened for completeness. In cases where gaps are identified, additional regulations and programs are recommended.

Design Standards

The City wants to exhibit consistency in its approach to stormwater management. Toward that end the City has developed standards for design, performance and management of its stormwater systems. Design standards promote consistency in analyzing existing and proposed systems. Design standards ensure a high level of protection from the impacts due to flooding or stormwater quality. The City intends this guidance to ensure that all hydrologic, hydraulic and water quality analyses will be prepared in a format that is consistent with the requirements of the City. Adherence to the City's guidelines will facilitate timely assessment and review of proposed stormwater management systems.

The Plan outlines design and management standards for water quantity. The intent of these standards is:

- To ensure a system that is adequately sized to manage volumes of water generated upstream and on-site
- To prevent downstream flooding due to upstream development
- To ensure a design that allows for economical future maintenance
- To promote an overall high level of flood protection to all residents in the City.

The City of Minneapolis has a comprehensive approach toward managing water quality. It includes ordinances, plan review, BMP installation and programs that like CSO program and rainleader disconnect program. Section 5 includes an overview of the existing ordinances and in-place programs and introduces a uniform system for assessing the water quality impacts of development projects.

Surface Water Monitoring

Surface water monitoring within the City of Minneapolis have been occurring for over ten years and has encompassed a range of water resources, including wetlands, lakes, and streams. It has also involved monitoring direct stormwater runoff as well as BMP-treated runoff. Monitoring within the City has evaluated many aspects of water quality (or indicators of water quality) such as nutrients, plant communities, transparency and more.

The Minneapolis Department of Public Works has historically participated in a limited number of surface water monitoring efforts and occasionally implements specialized monitoring efforts. One such monitoring effort occurred for the model calibration portion of this report. However, Public Works has not historically had an active, direct role in City-wide surface water monitoring efforts. A majority of the surface water monitoring within the City is carried out by the MPRB, along with the MCWD, SCWMC and BCWMC. Public Works will soon begin their own monitoring program focusing on obtaining hydrologic data to support the upcoming phase 2 LSWMP modeling effort.

The City of Minneapolis has a commitment to maintaining and, where possible, improving the quality of its surface waters. The City recognizes the value of surface water monitoring activities towards supporting that commitment. Currently, surface water monitoring activities are successfully being undertaken by the other agencies as described in Section 4.3.2. These agencies have developed specialized experience, skills and tools that allow them to effectively and efficiently collect and analyze monitoring data on many of the City's surface water resources. As such, the City will continue to rely on these agencies for performing monitoring activities.

Operation and Maintenance

Operation and maintenance guidelines are another important component to managing a surface water and conveyance system. Given the size of the system this is a daunting task. The City's surface water system covers an area of approximately 50 square miles. Over the last three decades the size of the City's system has increased significantly due to

- The separation of sanitary and storm sewers.
- The transfer of ownership of a network of storm drains from the Park and Recreation Board to the City in 2000.

The Sewer Maintenance Department is assigned the task of routine inspection and maintenance as needed to ensure proper functioning. Frequency of inspections and maintenance are often event-driven and based on experience and inspection results history. The Sewer Division maintains a complete inventory of the storm sewer system. It has also developed a formal inspection, cleaning and repair schedule in response to NPDES Phase I requirements.

Education

An important component of the implementation plan promoted in this report is education. Education plays an important role in any effort to implement a stormwater management program. The objectives of an education effort differ based on the target audience. In general, the target audiences comprise City Staff, City residents, and the development community.

City Staff have a wide range of responsibilities in the implementation of the LSWMP, including:

- System inspection, maintenance, and operation
- Maintaining performance levels and efficiency of stormwater facilities
- Planning and management of projects aimed at pollutant removal
- Good housekeeping on City-owned property
- Requiring and evaluating BMPs during plan review
- Planning and delivering education programs
- Working out cooperative arrangements with regulatory and non-regulatory organizations to achieve LSWMP objectives
- Assisting the City Council in the application of the LSWMP policies

To obtain the necessary political and economic support for successful LSWMP implementation, it is vital to inform City residents about basic stormwater management, flood mitigation and water quality concepts, and policies and recommendations in the LSWMP.

The City of Minneapolis keeps its residents informed through its web page. Information is provided on specific projects, and periodic updates on the progress of the listed projects are made available. Press releases to local papers and journals are also good methods by which this information is disseminated. Public meetings are held to invite public input on certain issues.

Education projects focused on water quality have received increasing attention and interest from the public over the last decade. Specific education projects that have been used successfully in the past include the following:

- Utility Billing Inserts
- Cable TV Programming
- Billboard Advertising
- Catch Basin Stenciling
- No-Phosphorus Fertilizer Sales

The education program also targets developers and their engineering and architectural consultants. The LSWMP is designed to provide the official policy direction that City Staff and the City Council desire to guide stormwater mitigation for new and redevelopment projects.

Much of the necessary information is disseminated to the developers in an information packet in the development submittal information they receive from the City. The information packet contains:

- Information from this section on the regulatory administrative responsibilities for developments within any of the four major watersheds covering the City.
- Information regarding stormwater mitigation requirements for various developments based on project area and type.
- Any information on areas of the City where special regulations may apply because of the existence of overlay districts.

Water Quality Implementation Efforts

Through their stringent monitoring efforts, the watersheds have identified waterbodies within their jurisdiction that rate lower than others in their reference category or do not meet target levels for a pollutant of interest (see table 5.9).

All of the waterbodies of concern listed under the MCWD have benefited from improvement efforts on the part of the MPRB as well as the MCWD. Within the last five years, all of the lakes have benefited from improvements that include aeration, shoreline restoration, alum treatment, littoral area revegetation, and the construction or installation of water quality BMPs (see table 4.9, Completed and Ongoing Efforts in the Watershed, Section 4.3.2.1). In its 2003-2007 budget, the MCWD identifies water quality protection and improvement as an important criterion for funding. Just this year (2003), the MCWD spent $10,000 for water quality improvements at Lake Nokomis (see MCWD 2003-2007 CIP budget). The City and the Park Board have focused their efforts and resources at Powderhorn Lake and Lake of the Isles in 2002 and 2003 (see Capital Long Range Improvement Committee (CLIC) Report; see also table 4.9, Completed and Ongoing Efforts in the Watershed, Section 4.3.2.1).

The City of Minneapolis has continued its efforts to eliminate all CSOs in the City. Funding for CSO Improvements in the City's capital budget is expected to continue through 2007 when they will all be eliminated. In its 2004 budget, the MWMO has close to $1,500,000 earmarked for NPS education, CSO elimination, stormwater treatment, and erosion control on the river.

The SCWMC completed Total Maxim Daily Load (TMDL) studies on Shingle Creek and ten lakes listed as impaired in the watershed at a cost of $113,000. It plans complete TMDL implementation in 2004 at a cost that has yet to be determined (see SCWMC 2003-2012 CIP).

The BCWMC is in the process of finalizing its Second Generation Plan and CIP. At this point, information on its planned expenditures is not available.

Flood Mitigation

As a result of severe flooding experienced during July 1997 rainstorms, the City prepared 1997 Flood Report and is in the process of implementing a flood mitigation program. Flood mitigation projects have been proposed for 51 sites. Of these, 12 projects have been completed, 3 are under construction, and 8 are in design. An additional 3 sites were analyzed in 1997 Flood Report and determined not to require City action. Figure 9 identifies the location and status of the flood mitigation projects.

To date, the City has budgeted $83,000,000 of funding for the flood mitigation program. It is estimated that the total needed to complete the program may exceed $90,000,000.

Deep Tunnel System

In recognition of its aging infrastructure, the City is embarking on a long-term project to rehabilitate its deep tunnel system. Current project work involves the inspection and assessment of all storm and combined sewer overflow tunnels located within the City. Each tunnel segment was assessed as to its condition and overall performance abilities. The result of this work will be to create a prioritized list of recommended repairs. The next step will involve the design and implementation of recommended repairs.

NPDES Phase I Program

The Federal Clean Water Act was amended in 1987 to require the implementation of the two-phase NPDES program to address non-point source pollution in stormwater runoff.

The Phase I NPDES Permit Program was initiated in 1990 and targeted sources of stormwater runoff that had the greatest potential to negatively impact water quality. The NPDES Phase II permit was initiated in 2002.

The U.S. Environmental Protection Agency delegated permitting authority for Minnesota's NPDES program to the MPCA. The City of Minneapolis received its individual stormwater permit in 2000. The permit will be renewed upon expiration on January 1, 2004.

Part 1 of the Permit elicited information on the community and potential sources of surface water pollution. Information required in Part 1 of the permit application included:

- Physical description of the MS4
- Legal authority of the MS4 operator
- Characterization of pollutants found in the stormwater discharge
- Identification of representative stormwater outfalls for sampling
- Description of existing stormwater controls
- Description of fiscal resources

Part 2 of the permit application focused on the development of a proposed stormwater management program that would meet the standard of "reducing pollutants to the Maximum Extent Practicable." Stormwater management programs for medium and large MS4s included measures to:

- Identify major outfalls and pollutant loadings
- Detect and eliminate non-stormwater discharges to the system
- Reduce pollutants in runoff from industrial, commercial, and residential areas
- Control stormwater discharges from new development and redevelopment areas

An important requirement of the program is an annual report outlining efforts to fulfill the requirements of the program.

A number of activities listed in the Minneapolis NPDES Phase I Permit are being coordinated through several City departments in the City of Minneapolis, such as Illicit Discharges and the Fertilizer and Pesticide Program. BMPs currently in use in the City are based on NPDES Phase I Permit. In 2001, a number of databases and forms were redesigned to keep up with the additional record-keeping requirements.

Capital Improvement Program

At this time, the City's surface water system is largely built. For this reason, no significant capital improvements are needed to complete the system. Instead, the primary capital improvements will be to address aging infrastructure, upgrading or replacement as appropriate when redevelopment opportunities arise. In addition, surface water improvements will likely take place as redevelopment occurs in the City. Facilities will need to be installed to meet the City's design standards as outlined in Section 5.4. The costs of these facilities will likely be borne by the developer, possibly with some City cost sharing.

The City's five-year capital improvement program for years 2004-2008, as listed in the Capital Long-Range Improvement Committee Report, is presented in table 5.12. of the report. The items listed in table 5.12 represent a sizable investment by the City in stormwater infrastructure.

Financing

The total cost of the City of Minneapolis' stormwater drainage system includes financing the maintenance of the system as well as construction of future improvements and enhancements. Several methods of financing the City's future projects and programs are available. Some of these are as follows:

- General Fund
- Sewer Funds
- Sewer Bonds
- Special Assessments
- Area and Connection Charges
- Grants

Amendment Procedures

On occasion, amendments to the Plan will be necessary. The process for amending the plan involves the following steps:

Request for Amendment: Written request for a plan amendment is submitted to City staff.

Staff Review of Amendment : A decision is made as to the validity of the request. Three options exist: 1) reject the amendment, 2) accept the amendment as a minor issue, with minor issues collectively added to the plan at a later date, or 3) accept the amendment as a major issue, with major issues requiring an immediate amendment. In acting on an amendment request, City staff shall recommend to the City Council whether or not a public hearing is warranted.

Council Consideration: The amendment and the need for a public hearing shall be considered at a regular or special Council meeting.

Public Hearing and Council Action: This step allows for public input based on public interest.

Watershed District and WMO Approval: All proposed amendments must be reviewed by the watershed district and WMOs prior to final adoption.

Annual Report

A brief annual report will be made by City staff summarizing development changes, capital improvements, and other water management-related issues that have occurred over the past year. The review will also include an update on available funding sources for water resource issues. Grant programs are especially important to review since they may change annually. These changes do not necessarily require individual amendments. The report can, however, be considered when the LSWMP is brought up to date. The annual report should be completed by July 1st to allow implementation items to be considered in the normal budget process.

The City's LSWMP will remain in effect through 2013. The City will then review the LSWMP for consistency with current water resource management methods.

At that time, all annual reports and past amendments will be added to the document. Depending on the significance of changes, a new printing of the LSWMP may be appropriate. At a minimum, the Capital Improvement Program will be amended every five years.

Council Adoption

Final action on an amendment, following approval by the watershed district and WMOs, is City Council adoption. However, prior to the adoption, an additional public hearing could be held to review the plan changes and notify the appropriate stakeholders.